

Signature

PTO/SB/21 (08-03)

Date

Approved for use through 08/30/2003. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 10/708,538 **TRANSMITTAL** Filing Date 03/10/2004 **FORM** First Named Inventor Le-Jen Wang **Art Unit** (to be used for all correspondence after initial filing) **Examiner Name Attorney Docket Number** 3 CHEP0029USA **Total Number of Pages in This Submission ENCLOSURES** (Check all that apply) After Allowance communication to Technology Center (TC) Fee Transmittal Form Drawing(s) Appeal Communication to Board Licensing-related Papers of Appeals and Interferences Fee Attached Appeal Communication to TC Petition (Appeal Notice, Brief, Reply Brief) Amendment/Reply Petition to Convert to a Proprietary Information **Provisional Application** After Final Power of Attorney, Revocation Status Letter Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Terminal Disclaimer Identify below): **Extension of Time Request** Request for Refund **Express Abandonment Request** CD, Number of CD(s) Information Disclosure Statement Remarks **Certified Copy of Priority** Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Winston Hsu, Reg. No.: 41,526 Individual name Signature Date **CERTIFICATE OF TRANSMISSION/MAILING** I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. Typed or printed name

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

APR 0 9 7004 DE STRADEMAN

Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$) 0.00

Co	Complete if Known			
Application Number	10/708,538			
Filing Date	03/10/2004			
First Named Inventor	Le-Jen Wang			
Examiner Name				
Art Unit				
Attomey Docket No.	CHEP0029USA			

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)					
Check Credit card Money Other None	3. AI	DOITI	ONAL	. FEE	S	-
Deposit Account:		-	Small			Ì
Denosit	Fee Code		Fee Code	Fee (\$)	Fee Description	Fee Paid
Account Number 50-0801	1051	130	2051		Surcharge - late filing fee or oath	
Deposit Account North America International Patent Office	1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
Name	1053	130	1053	130	Non-English specification	
The Director is authorized to: (check all that apply)  Charge fee(s) indicated below  Credit any overpayments	1812	2,520	1812 2	2,520	For filing a request for ex parte reexamination	
Charge any additional fee(s) or any underpayment of fee(s)	1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
Charge fee(s) indicated below, except for the filing fee	1805	1,840*	1805 ·	1.840*	Requesting publication of SIR after	
to the above-identified deposit account.			r	.,	Examiner action	0.00
FEE CALCULATION	1251	110	2251	55	Extension for reply within first month	0.00
1. BASIC FILING FEE	1252	420	2252	210	Extension for reply within second month	
Large Entity Small Entity  Fee Fee Fee Fee Fee Description Fee Paid	1253	950	2253	475	• •	
Code (\$)   Code (\$)		1,480	2254	740		
1001 770 2001 385 Utility filing fee		2,010	2255	•	Extension for reply within fifth month	
1002 340 2002 170 Design filing fee	1401	330	2401		Notice of Appeal	
1003 530 2003 265 Plant filing fee	1402	330	2402		Filing a brief in support of an appeal	
1004 770   2004 385   Reissue filing fee	1403	290	2403		Request for oral hearing	
1005 160 2005 80 Provisional filing fee		1,510	1451		Petition to institute a public use proceeding	
SUBTOTAL (1) (\$) 0.00	1452	110	2452		Petition to revive - unavoidable	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE		1,330	2453		Petition to revive - unintentional	
Fee from Extra Claims below Fee Paid		1,330 480	2501 2502		Utility issue fee (or reissue)  Design issue fee	
Total Claims	1503	640	2503		Plant issue fee	
Independent Claims - 3** = X =	1460	130	1460		Petitions to the Commissioner	
Multiple Dependent =	1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
Large Entity   Small Entity	1806	180	1806		Submission of Information Disclosure Stmt	
Fee Fee Fee <u>Fee Description</u> Code (\$) Code (\$)	8021	40	8021	40	Recording each patent assignment per	
1202 18 2202 9 Claims in excess of 20	1809	770	2809		property (times number of properties) Filing a submission after final rejection	$\vdash$
1201 86 2201 43 Independent claims in excess of 3	1003	770	2003	303	(37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid	1810	770	2810	385	For each additional invention to be	
1204 86 2204 43 ** Reissue independent claims over original patent	1801	770	2801	385	examined (37 CFR 1.129(b))  Request for Continued Examination (RCE)	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802	900	1802	900	•	
Jan 0 00	Other	fee (so	ecify)		or a design application	
SUBTOTAL (2) (\$) 0.00		` -			ee Paid SUBTOTAL (3) (\$) 0.00	
**or number previously paid, if greater; For Reissues, see above	1		-		σσσισι <del>λ</del> Ε (σ) (φ) σ.σσ	

SUBMITTED BY								(Complete	(if applicable))
Name (Print/Type)	Winston Hsu	,	1	_	A	Registration No. (Attorney/Agent)	41,526	Telephone	∍ 886289237350
Signature		1	10	N	Los	stan	1	Date	4/1/2010

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

APR 0 9 2004 3140

APR 0 9 2004 3140

PRADEMAN

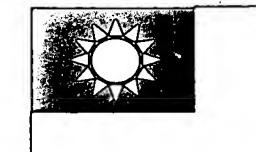
Under the Paperwor

PTO/SB/02B (11-00)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
he Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

# **DECLARATION** — Supplemental Priority Data Sheet

Additional foreign app	lications:			
Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES NO
092132551	Taiwan R.O.C	11/20/2003		
		·		
		<b>-</b> ··		
				· 🗆 🗀
·				

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



인당 인당 인당 인당

# 中華民國經濟部智慧財產局

INTELLECTUAL PROPERTY OFFICE MINISTRY OF ECONOMIC AFFAIRS REPUBLIC OF CHINA

茲證明所附文件,係本局存檔中原申請案的副本,正確無訛,其申請資料如下:

This is to certify that annexed is a true copy from the records of this office of the application as originally filed which is identified hereunder:

申 請 日: 西元 2003 年 11 月 20 日

Application Date

리도 리드 리드 리드 리드 티드

申 請 案 號: 092132551

Application No.

申 請 人: 誠研科技股份有限公司

Applicant(s)

局

長

Director General







發文日期: 西元 <u>2004</u> 年 <u>2</u> 月 <u>17</u>日 Issue Date

發文字號:

09320146700

Serial No.

9인 5인 5인 5인 5인 5인 5인 5인 5인 5인 5인

申請日期:	IPC分類
申請案號:	

以上各欄	由本局填言	發明專利說明書
	中文	具有可替换式連接模組的相片印表機
後明名稱	英文	PHOTO PRINTER HAVING A DETACHABLE CONNECT MODULE
	姓 名 (中文)	1. 王樂仁 2. 杜俊穎
=	(英文)	1. WANG, LE-JEN 2. TU, CHUN-YING
發明人 (共2人)	國籍(中英文)	1. 中華民國 TW 2. 中華民國 TW
	1 <del></del>	1. 台北縣板橋市莊敬路一六二號十三號2. 台北市瑞安街二二二卷三十三號三樓
	住居所(英文)	1.13F, No. 162, Chuang-Jing Rd., Pan-Chiao City, Taipei Hsien 220, Taiwan, R.O.C. 2.3F, No. 33, Lane 222, Jui-An St., Taipei City 106, Taiwan, R.O.C.
	名稱或 姓 名 (中文)	1. 誠研科技股份有限公司
	名稱或 姓 名 (英文)	1. HI-TOUCH IMAGING TECHNOLOGIES CO., LTD.
Ξ	國籍(中英文)	1. 中華民國 TW
申請人 (共1人)	住居所 (營業所) (中 文)	1. 台北縣板橋市雙十路三段三十一號三樓 (本地址與前向貴局申請者相同)
	住居所 (營業所) (英 文)	1.3F, No.31, Sec. 3, Shuang-Shih Rd., Pan-Chiao City, Taipei Hsien 220, Taiwan, R.O.C.
	代表人(中文)	1. 黄健華
	代表人(英文)	1. HUANG, CHIEN-HUA



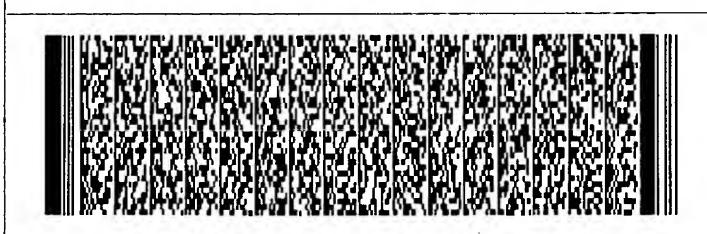


#### 四、中文發明摘要 (發明名稱:具有可替換式連接模組的相片印表機)

一種相片印表機,其包含一殼體;一電路板,安裝於該殼體內,其上設有一控制電路以及一第一組母導電端子,其包含一類。 子,其包含用來控制該印表機之運作;一連接組 组,其包含一轉接器,該之含一第一組公導電端子 子以及一第二組公導電端子;一外接卡,用來儲存資 料,該外接卡包含一第二組母導電端子,用來連接該第一組公導電端子。

五、英文發明摘要 (發明名稱:PHOTO PRINTER HAVING A DETACHABLE CONNECT MODULE)

A photo printer includes a housing, a circuit board having a first set of female conducting terminals and a control circuit for controlling the operation of the printer, a connect module having a connector that contains a first set of male conducting terminals for engaging with the first set of female conducting terminals, and a second female conducting terminals, and an



四、中文發明摘要 (發明名稱:具有可替換式連接模組的相片印表機)

五、英文發明摘要 (發明名稱:PHOTO PRINTER HAVING A DETACHABLE CONNECT MODULE)

external card for storing data having a second set of female conducting terminals for engaging with the first set of female conducting terminals.



# 六、指定代表圖

- (一)、本案代表圖為:第 \_\_\_\_\_圖
- (二)、本案代表圖之元件代表符號簡單說明:
- 12 電路板
- 32 殼體
- 48 連接器
- 56、58 母導電端子
- 72 突出緣
- 66、78 螺孔
- 90 延伸部

- 36 外接卡
- 42 防塵外殼
- 50、52 公導電端子
- 60 外殼
- 82 開口
- 84 螺釘



一、本案已向			
國家(地區)申請專利	申請日期	案號	主張專利法第二十四條第一項優先權
		無	
		<b>/</b> ***	
二、□主張專利法第二十	-五條之一第一項優	上先權:	
申請案號:			
日期:		無	
三、主張本案係符合專系	<b>引法第二十條第一項</b>	<b>頁□第一款但書</b> 或	〔□第二款但書規定之期間
日期:			
四、□有關微生物已寄存	序於國外:		
寄存國家: 寄存機構: 寄存日期:		無	
寄存號碼: □有關微生物已寄存	z於國內(太烏所指	定之客存機構):	
寄存機構:	1次四门(450)//36		
寄存日期:		無	
寄存號碼:			
□熟習該項技術者易	分於獲得,不須寄存	•	



#### 五、發明說明 (1)

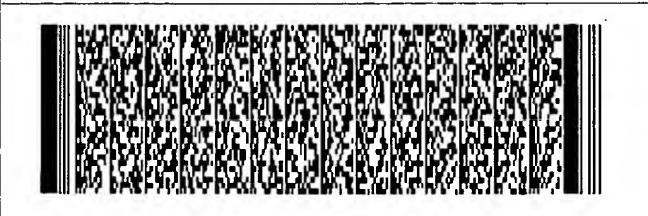
## 【技術領域】

本發明係關於一種相片印表機,尤指一種具有可方便替換的連接模組的相片印表機。

# 【先前技術】

隨著數位科技的快速發展,手機、數位相機等可隨身攜帶的數位影像擷取裝置的低價與便於攜帶性,也使得這些裝置已經成為現代人生活中的一部份。而為了儲存這些影像擷取裝置拍攝所得之動、靜態影像,快閃記憶卡(Compact Flash card,CF card)就成為其中一種常被使用的儲存媒體。快閃記憶卡會以數位檔案之格式(例如JPG等之格式)儲存擷取的影像。之後,將存有這些影像的快閃記憶卡連接到一電腦已對這些影像進行進一步的影像處理,甚至加強特殊效果。當然也可以將這些影像連接到一相片印表機(Photo Printer),以將這些影像直接列印出栩栩如生的圖案出來。

請參閱圖一,圖一為習知快問記憶卡20之插槽22與連接器(connector)14之連接示意圖。印表機10包含一電路板12,其包含一連接器14。連接器14上包含有一組導電端子16,用來與快問記憶卡20之插槽22相連接,以使得快問記憶卡20儲存的資料可經由導電端子16傳送至電路板





#### 五、發明說明 (2)

## 12上的控制電路作進一步的處理。

#### 【內容】

因此,本發明之目的係提供一種具有可輕易替換的連接模組的印表機,以解決上述問題。

本發明之申請專利範圍係提供一種相片印表機,其包含一般體;一電路板,安裝於該殼體內,其上設有一控制電路及一第一組母導電端子,該控制電路係用來控制該印表機之運作;一連接模組,其包含一轉接器,該第一組公導電端子以及一第二組公導電端子,該第一組公導電端子係用來連接該第一組母導電端





#### 五、發明說明 (3)

子;一外接卡,用來儲存資料,該外接卡包含一第二組母導電端子,用來連接該第二組公導電端子。

本發明之時請專利範圍之優點在於,因為外接卡之母導電端子在連接於的過程中,內容易因為人類的過程,內容易因為人類。

一個不可能,因為外接中之母,

一個新的連接模組。

# 【實施方法】

請參閱圖二以及圖三,圖二係本發明之相片印表機 30之外觀示意圖,圖三為圖二之相片印表機 30之內部示意圖。印表機 30包含一殼體 32、一電路板 12、一防塵件 42、一連接模組 40以及一外接卡 36。電路板 34安裝於殼體 32內,其上設有一控制電路 (圖未示 )以及一第一組母導電端子 56,控制電路係用來控制印表機 30之運作。連接 4 40包含一轉接器 4 8以及一外殼 60,轉接器 4 8包含一第一組公導電端子 50條用來連接第一組母導電端子 56,外



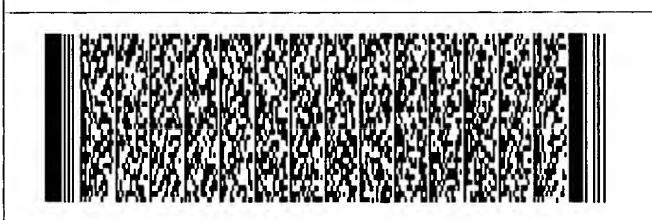


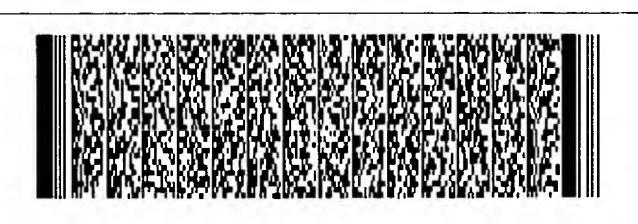
#### 五、發明說明 (4)

殼 60係用來容納轉接器 48。外接卡 36係用來儲存資料, 其可為一快閃記憶卡或是其它類似的記憶卡,外接卡 36 包含一第二組母導電端子 58,用來連接第二組公導電端 子 52。防塵件 42包覆於外殼 32上,用來防止灰塵飄入印 表機 30之內部。

為了更進一步說明本實施例之連接模組 40與外接卡 36以及電路板 12之間的連接關係,請一併參閱圖二、圖三以及圖四為本發明之連接模組 40組裝於電路板 12之示意圖。轉接器 48包含二延伸部 90,延伸部 90上皆設有一第一開洞 92。外殼 60在相反兩側設有二突出緣 72上皆設有一第二開洞 74。而外殼 60之第三側設有二第一螺孔 78內,以使轉接器 48可鎖固於外殼 60。電路板 12上另包含二第二螺孔 66,而兩個第二螺釘 86可穿過二第二開洞 74並收容於第二螺孔 66內,以使外殼 60鎖固於電路板 12上。

整個安裝程序說明如下,首先先將轉接器 48放置入外殼60內,並利用兩個第一螺釘 84穿過外殼 60的二第一開洞90,使其收容在二第一螺孔 78內,以使轉接器 48鎖 固於外殼 60。接下來,將連接器 48的第一組公導電端子 50與電路板 12上的第一組母導電端子 56相連接。為了避免已組合的連接器 48和外殼 60的 重力破壞第一組公導電端子





#### 五、發明說明 (5)

50和第一組母導電端子 56的連結,可用兩個第二螺絲 86 將外殼 60之突出緣 72上的第二開洞 74對應電路板 12的第二螺孔 66加以鎖固,不但可以加強外殼 60與電路板 12的接合,同時已鎖固的第二螺孔 66也可以分擔連接器 48和外殼 60的重量對導電端子 50、 56的影響。

請再回頭參閱圖二,待連接器 48、外殼 60與電路板 12組裝完成後,再將防塵件 42的覆蓋於外殼 60上,並透過一第三螺釘 94穿過防塵件 96的第三開洞 96,以鎖固於殼體 32的第三螺孔 98上。請注意,此時連接器 48的第一開口 62會對應到防塵件 42的第二開口 82。最後,使用者就可以將外接卡 36的第二組母導電端子 58與連接器 48的第二組公導電端子 52相連接。

請參閱圖五,圖五為組裝完成並將外接卡36插入使用後的印表機30之外視圖。

即使因使力不當而將連接模組40的第二組公導電端子52折斷,使用者可以自行快速地依序將防塵件42、外殼60以及連接器48予以分解,並替換壞掉的連接器48。

相較於習知技術,本發明之連接模組具有兩組公導電端子,一者可用與電路板上的第一組母導電端子相互插拔連接,另一者則可用與外接卡的第二組母導電端子相插





#### 五、發明說明 (6)

拔連接,所以即使外接卡在插拔過程中施力不當,導致連接模組對應的第二組公導電端子發生斷裂,使用者可以快速地自殼體拆除連接模組,並更換另一個新的連接模組。

以上所述僅為本發明之較佳實施例,凡依本發明申請專利範圍所做之均等變化與修飾,皆應屬本發明專利之涵蓋範圍。



#### 圖式簡單說明

## 圖式之簡單說明

圖一為習知快閃記憶卡之插槽與連接器之連接示意圖。

圖二為本發明之相片印表機之外觀示意圖。

圖三為圖二之相片印表機之內部示意圖。

圖四為本發明之連接模組組裝於電路板之示意圖。

圖五為組裝完成並將外接卡插入使用後的印表機之外視圖。

# 圖式之符號說明

10、30 印表機

14 連接器

20、36 外接卡

32 殼體

42 防塵外殼

50、52 公導電端子

60 外殼

72 突出緣

74、96、98 開洞

90 延伸部

12 電路板

16 公導電端子

22 母導電端子

40 連接模組

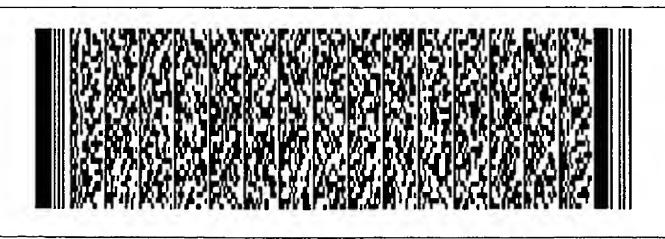
48 連接器

56、58 母導電端子

66、78、92 螺孔

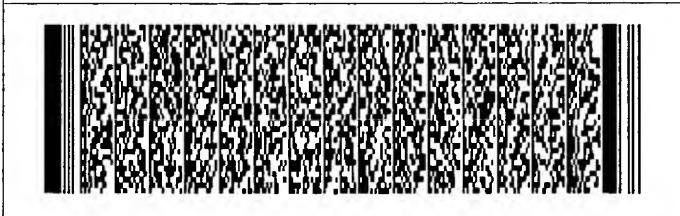
62、82 開口

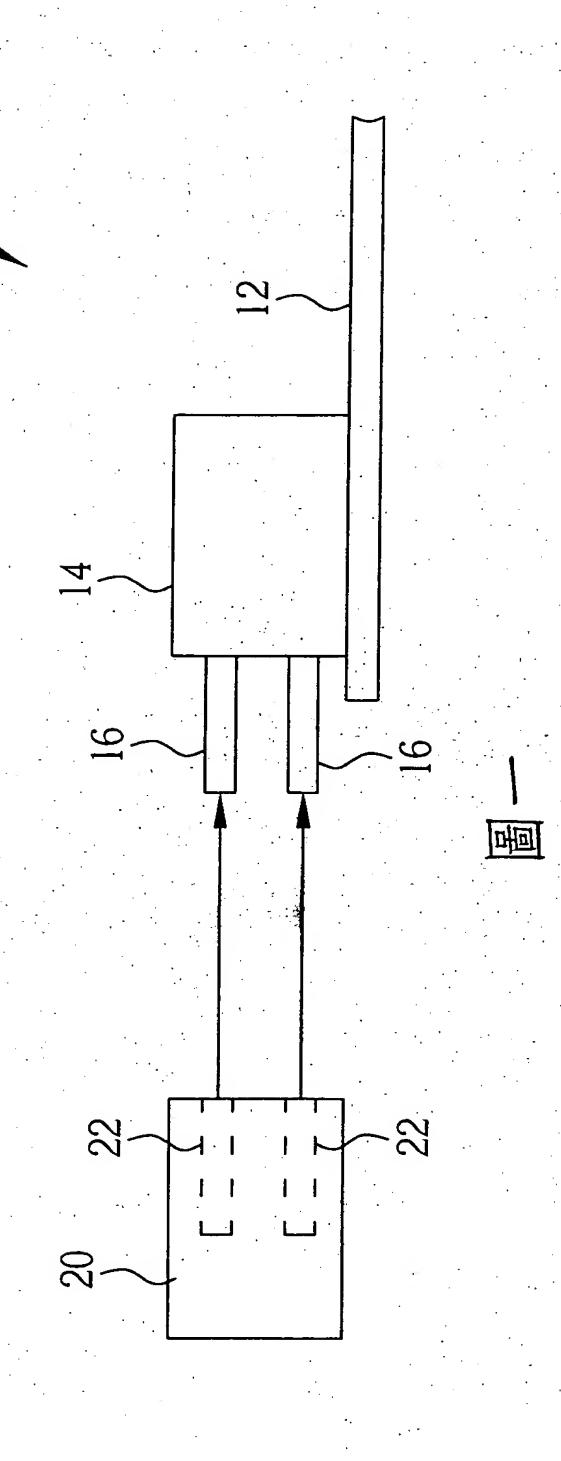
84、86、94 螺釘

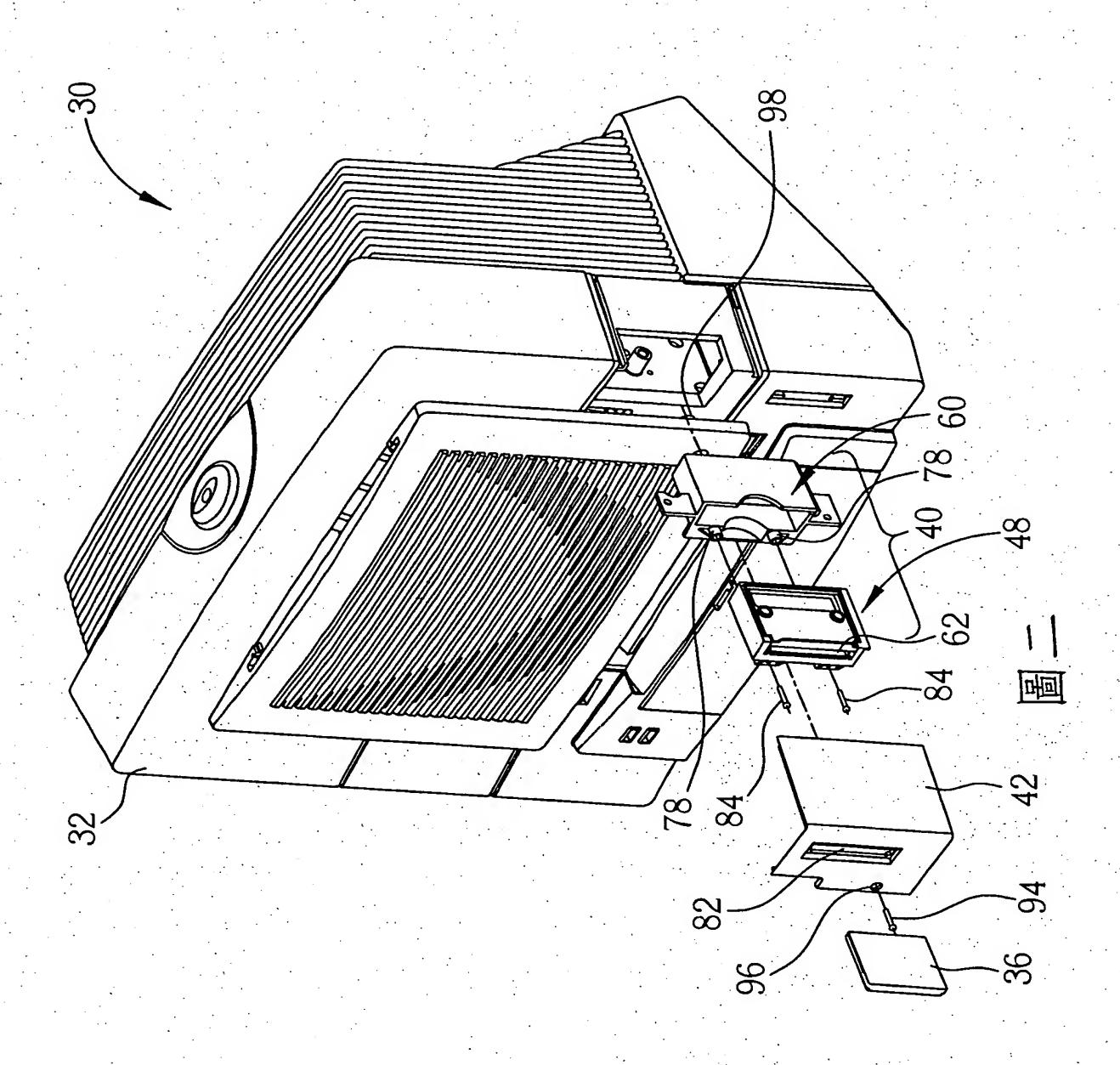


#### 六、申請專利範圍

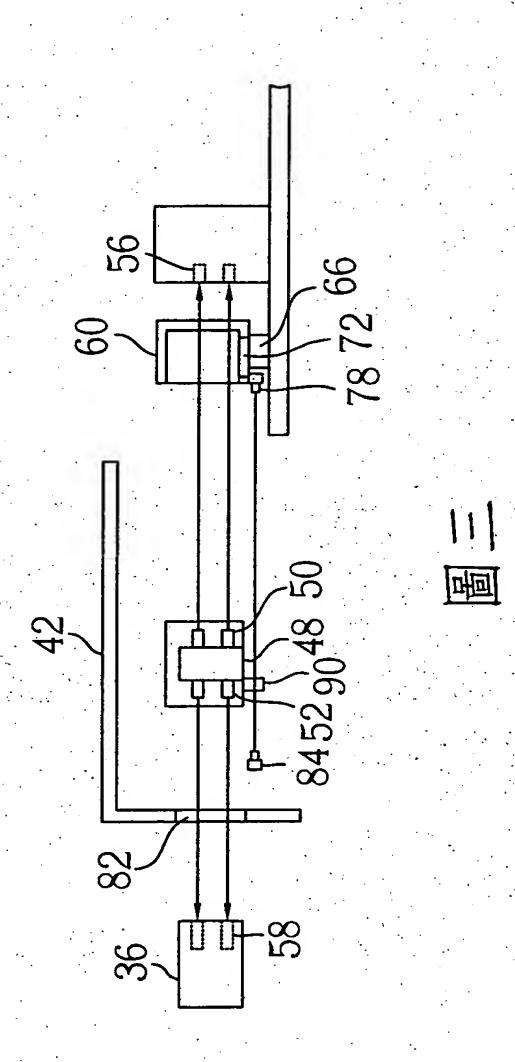
- 1.一種相片印表機,其包含:
- 一 殼 體;
- 一電路板,安裝於該殼體內,其上設有一控制電路以及
- 一第一組母導電端子,該控制電路係用來控制該印表機
- 之運作;
- 一連接模組,其包含一轉接器,該轉接器包含一第一組以道爾州了以前爾州了以及
- 公導電端子以及一第二組公導電端子,該第一組公導電
- 端子係用來連接該第一組母導電端子;以及
- 一外接卡,用來儲存資料,該外接卡包含一第二組母導
- 電端子,用來連接該第二組公導電端子。
- 2.如申請專利範圍第1項所述之相片印表機,其中該連接模組另包含一外殼,用來容納該轉接器。
- 3.如申請專利範圍第1項所述之相片印表機,其中該相片印表機另包含一防塵件,包覆於該外殼上,用來防塵。
- 4.如申請專利範圍第1項所述之相片印表機,其中該外接卡係一快閃記憶卡(compact flash card)。

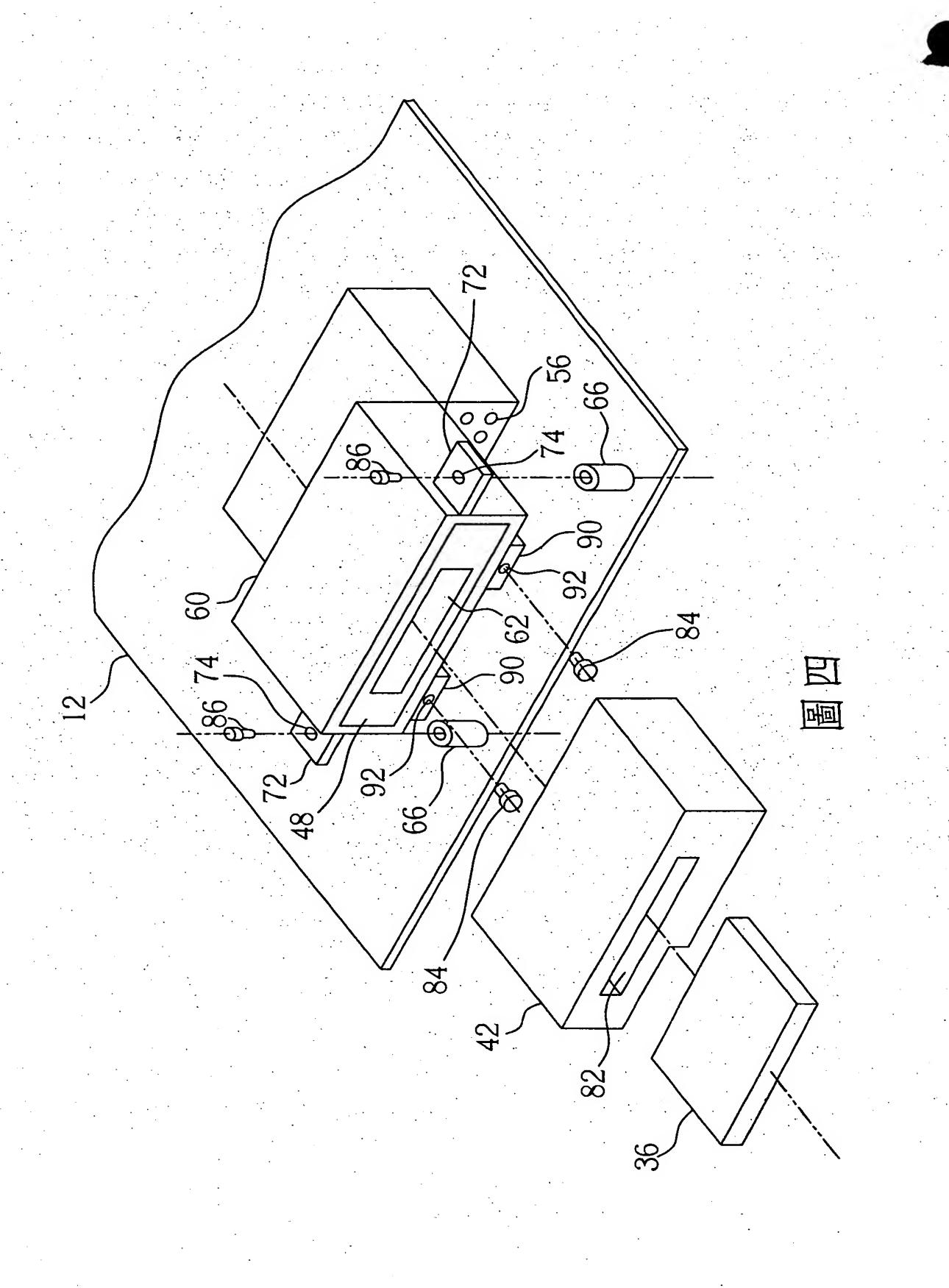


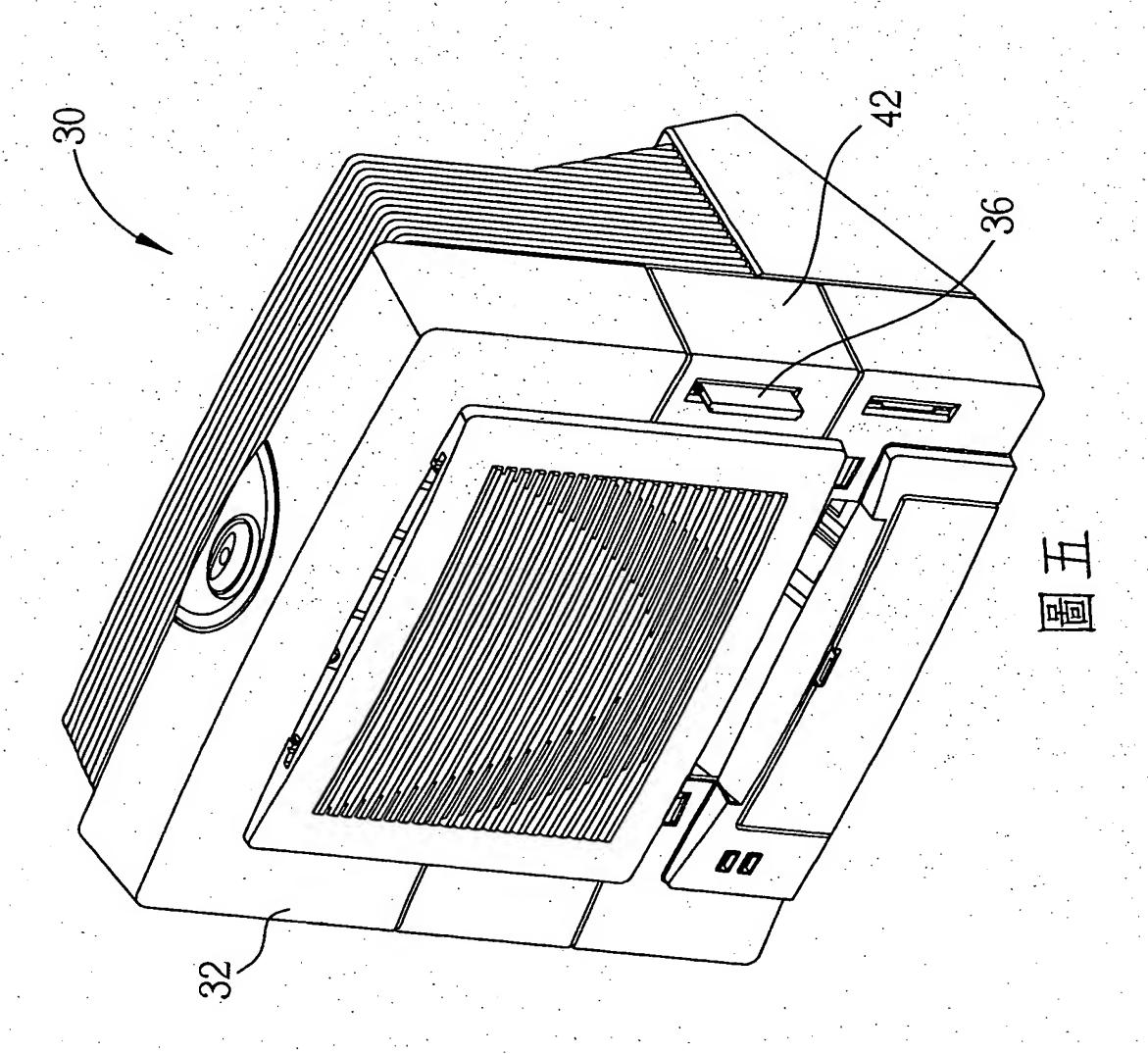


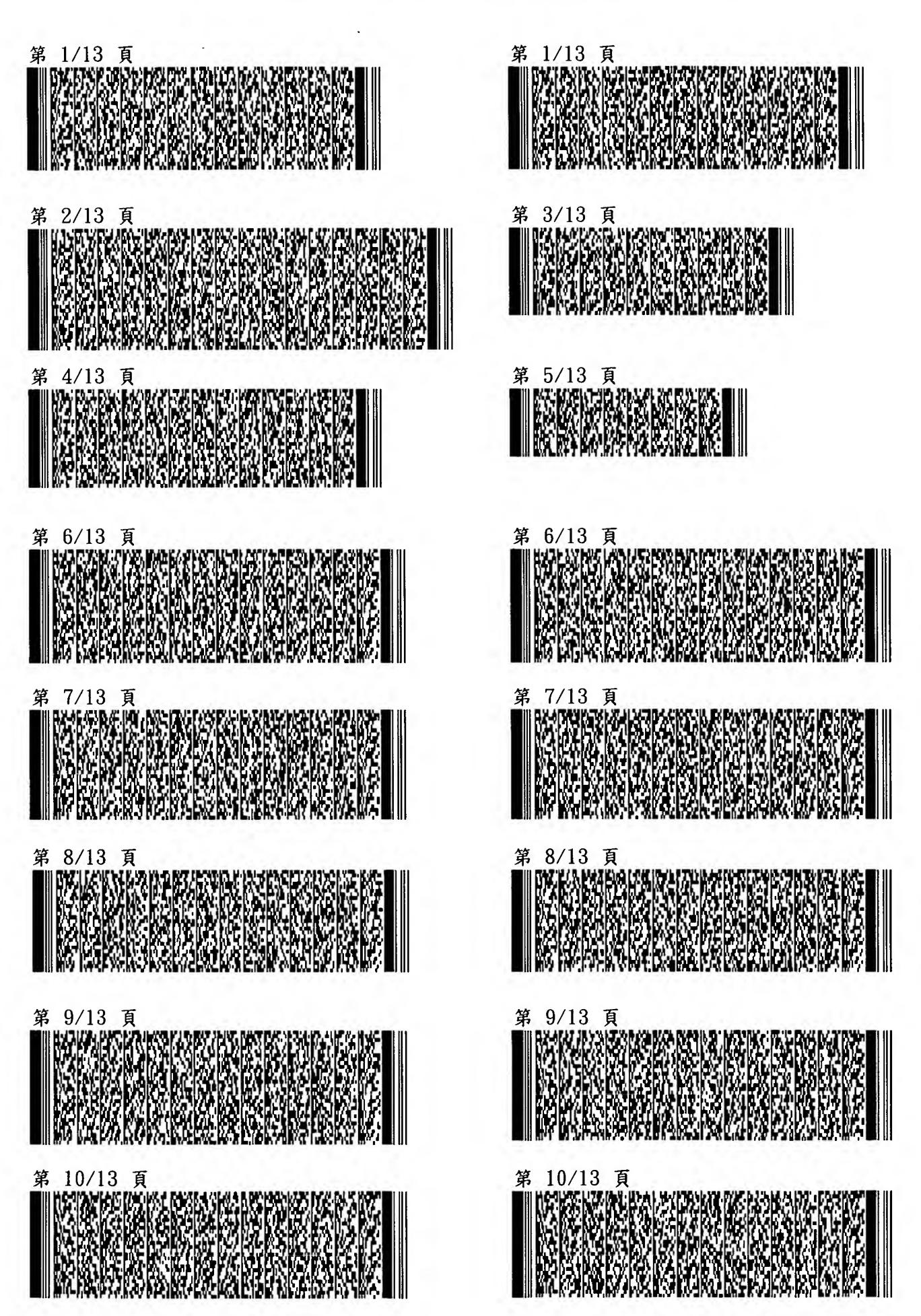












# (4.6版)申請案件名稱:具有可替換式連接模組的相片印表機







•

.

\*